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WEEKLY STATION REPORTS

OF THE DIVISION OF

DRY LAND AGRICULTURE

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

APR 25 1936

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REPORT FOR THE WEEK ENDING APRIL 25, 1936.

HAVRE:

Cooler weather with minimum temperatures ranging from 33° to 43° persisted throughout the week. Cloudy skies and occasional rain or snow prevented field work to some extent during the last two days.

Spring rye sown April 13 emerged uniformly. Winter wheat, which did not germinate to any extent last fall, now has very uneven stands and reseeding may be necessary. The condition of fall rye is reasonably satisfactory. Certain grain-hay projects and the spring wheat, oats, and barley variety tests were sown later in the week. An early planting of wheat, safflower, and flax also was made.

Visitors included, Director F. B. Linfield and Professors W. R. Plew, Supervising Architect; F. M. Harrington, Horticulturist; and D. W. Chittenden, Animal Husbandman, all of Montana State College.

Maximum temperature, 84°; minimum, 33°; precipitation, 0.30 inch.

JUDITH BASIN:

The first three days of the week were suitable for field work, and the bulk of the rotation and cereal plots were seeded. Other field work included cultivation of corn land for feed oats. Crested wheatgrass and bromegrass have made good growth, but alfalfa plantings and native grass are slow in starting. Winter wheat stands are very poor, both on the station plots and on fields in this vicinity, and a large acreage is being reseeded to spring wheat.

Precipitation in the form of rain and snow received on the last three days of the week assures ample moisture for germination of all small grain and grass plantings and a very good start for perennial forage and range grasses.

Maximum temperature, 77°; minimum, 31°; precipitation, 0.99 inch.

HUNTLEY:

Much of the past week has been cloudy with threatened rain, but only light showers of little benefit to crops have been received. Field work has progressed with only brief interruption on account of wet soil. The cooler and cloudy weather has been of help to young winter wheat, which suffered from drought and beating winds a week ago. Stands of wheat on all plantings continue to be thin and the growth is weak. Winter rye appears to be somewhat stronger but is much below normal in condition. Crested wheatgrass is starting well, but alfalfa is slow and the new growth is not uniform. It is still too early to determine the amount of winterkilling, if any, in the various plantings.

Visitors during the week included Director Linfield of the Montana Station, and R. Shotwell and crew of the U. S. Bureau of Entomology who have been engaged in making a grasshopper egg survey of this locality.

Maximum temperature, 86°; minimum, 31°; precipitation, 0.41 inch.

SHERIDAN:

The warm weather of last week extended over the 18th and 19th, but temperatures over the remainder of the current week were much more moderate, although still considerably above the station average for the season. Field work was possible throughout the week until today, when a light shower during the night made the surface too sticky to work.

Preparation of the rotation field for seeding was completed, and spring grains and other early seeded crops in that field were sown. Seeding of the varieties of spring wheat and oats was completed yesterday (April 24), and some miscellaneous fields were sown during the week. With the exception of a few plots, spring plowing in the rotation field worked up better than usual.

Spring grain sown the 15th emerged the last of the week. Grass and alfalfa continue to make a good growth. Russian thistles have started thick in much of the alfalfa, however. Winter wheat continues slow, but the appearance of all but a few fall plowed and stubbled plots, where there was little grain stubble, has improved considerably. This crop killed badly on much of the fallow in this section, most fields being very uneven with large areas here and there with no stand at all and other areas with a fair to good stand. Some of these fields are being reseeded to spring wheat. Most fallow plots on the station appear now to have a fair stand, although on some of them there are spots that are mostly bare.

The sheep were placed in their respective pastures during the week, although it was necessary to place the lot to go on annual crops in the reserve pasture on native grass until the rye is ready to pasture.

Maximum temperature, 82°; minimum, 33°; precipitation, 0.19 inch.

DICKINSON:

The forepart of the week was warm with drying winds, the latter part was cool and cloudy with light snow on the 23rd. Miscellaneous planting and clean up work was done. Wheat, oats, and barley varieties and much of the nursery seeding was completed. Some plantings of shrubbery about the garden and grounds were made. The few remaining trees of the old jack pine planting southwest of the buildings were pulled with the tractor. This area will be replanted to Ponderosa pine this spring if a suitable seed bed can be prepared.

Visitors included Judge Harris and Mrs. Ulsrud, State Board of Administration, Bismarck; Mr. Hagenstad, Resettlement Administration; Goodman Feinstein, PWA Project Supervisor, Survey of Federal Archives; W. J. Hunt, Development Dept., Northern Pacific R. R.

Maximum temperature, 83°; minimum, 19°; precipitation, 0.13 inch; precipitation, April 1-25, 0.21 inch.

MANDAN:

Agronomy - The past week has been cool and cloudy. Oats, barley, peas, and sweetclover were seeded early in the week. Crested wheatgrass fields are now green, but growth is slow because of cool weather.

Maximum temperature, 55°; minimum, 14°; precipitation, 0.03 inch.

Arboriculture - Shipping of nursery tree stock to shelterbelt cooperators has been in progress during the week. Cultivation has been in progress in fallowed areas and nursery fields. The low temperatures of the middle of the week have probably destroyed the American elm seed crop. Most of the trees were in blossom when the frost occurred.

Horticulture - Planting of fruit trees in the test orchards and breeding blocks has been completed. The nursery has also been planted. Stock budded last year has been cut back. Fields have been raked and the first cultivation of the season is in progress. Pruning has been partly completed. Small brush and dirt dams have been built in several places for erosion control.

It is still too early to estimate the amount of winter killing or drought killing, as much depends on whether we get early spring rains. It appears, however, that considerable killing back will take place.

Visitors for the week included H. J. Clemmer, Regional Conservator, and Mr. Mitchell, Soil Conservation Service, Rapid City, S. Dak.

BELLE FOURCHE:

Cold, cloudy, unsettled weather prevailed the greater part of the week, but the first day was abnormally warm, the temperature closely approaching the highest of record for April. A number of light showers were received, but the precipitation was not heavy enough to moisten the soil deeper than 1 inch, and additional rain is needed to secure satisfactory stands of the various crops. Portions of many of the rotation plots are too dry to permit the germination of grain seeded last week.

Plant growth was quite backward, owing to the cool weather, but there was marked improvement in the condition of winter wheat and winter rye, and satisfactory stands have developed on all of the fall grain plots. Hay and pasture crops made very little progress. Only a small percentage of the stands obtained from 1935 seedings of bromegrass, alfalfa, and sweetclover have survived.

Maximum temperature, 85°; minimum, 28°; precipitation, 0.19 inch.

ARCHER:

During the week ending April 25 the weather was mild to warm, with a shower totaling 0.15 inch during the afternoon of April 23. Except for the effect of a few local showers the soil generally is in a rather unfavorable condition for seeding. In Laramie County the seeding of small grains is in full swing. Some of the earlier seedings have emerged. In the eastern part of the county winter wheat seeded on fallow with the furrow drill covers the ground and is about

4 inches high. Winter wheat seedings made with the common drill have suffered severely. In this locality the native grasses have made a fair start, and it is estimated that crested wheatgrass will be ready for pasture May 1.

All spring tillage in the rotation plots is complete, and the staking of the plots is in progress. Other tillage and seeding operations at the station are complete so far as the season permits.

C. E. Snider, U. S. Department of Commerce, and F. L. Duley, Soil Conservation Service were station visitors.

Maximum temperature, 74°; minimum, 33°; precipitation, 0.15 inch.

AKRON:

Local showers have been the major weather manifestation during the week.

Cornland and small grain stubble land for cereal nursery and the variety fallow were plowed during the week. This land plowed ideally. All experimental roadways have been blocked out and duck-foot cultivated. Some one-horse work was accomplished in the border plantings to destroy wild lettuce and brome. Narrow alleys on the 20-acre planting of winter wheat were also one-horse cultivated to eliminate escaped wheat plants. Orchard is being spring tooth harrowed today to eliminate the wild brome and lettuce.

Oats and barley stands have improved some on the rotation plots, but stands are not yet full. Many kernels are awaiting a general soaking of the surface soil, and will cause uneven emergence which keeps the plots ragged in appearance right up to harvest time. This delayed emergence also gives the thistles a chance to gain dominance. Winter wheat, in growthy condition on fallow, is beginning to show that 'bunchy' appearance so common when there is a lack of rainfall and the accompanying cooler weather. Russian thistles emerged last week and are well established on all cereal plots of the rotation block except in the more growthy winter wheat on fallow.

There has been severe needle burning on the western yellow pines set in 1924 and 1926. In a few instances the entire needle length and the tip appear to be entirely dried and dead. Apparently such killed plants do not represent more than 1 percent, but these losses will make great holes in the practically 100 percent stands of the two-row plantings. Shrubbery plantings about the building foundations are greening-up nicely by this week end. Cutworms are present everywhere on the station, but not in such numbers as to simulate army movements. Undoubtedly there will be much injury to seeded grain but probably not destructive.

Maximum temperature, 84°; minimum, 34°; precipitation, 0.04 inch.

COLBY:

This has been a dry week. Part of the time it was warm and pleasant and part of the time it was unseasonably cold and windy. Four days were windy and dusty with some soil blowing. The worst day was Thursday when the wind blew hard all day and all night, causing considerable soil blowing. The air was filled with dust, limiting the visibility to less than half a mile.

In spite of the cold winter and the subzero temperatures this month, the apricots now have scattering blooms, and plums and cherries are in full bloom. Even a smattering of Chinese elm seed has been noticed. The apple trees are beginning to blossom.

Pastures are greening up considerably. The spring small grains are up to good stands. The winter wheat on the station continues to deteriorate, and it is now evident that we shall not have anything approaching a harvestable stand on any of the plots in the D. L. A. project, in the variety test, or nursery whether drilled with the common 8-inch drill, the 11-inch or 14-inch furrow drill, or the nursery drill either immediately before the only good rain we had last fall the last week in September or after that rain. We have practically no wheat where there was no moisture at seeding time and even less where there were 30 inches of moisture. Still on the southwest quarter of this same section of land there is a promising field of wheat where the ground was summer fallowed, starting after the weeds had used all the moisture last June, and where there was no moisture at all at seeding time.

The preliminary tillage work for fallow, corn, and the sorghums was done this week. The ground was amply wet and worked nicely. The oneway turned up the soil very mellow to fine.

Maximum temperature, 84°; minimum, 27°; precipitation, trace.

HAYS:

Except for a small shower early in the week which dampened the surface soil for a few hours the drought continues. At times during the week the air was dusty, but no winds of destructive velocity occurred.

Winter wheat generally is needing rain. I think no serious damage has occurred due to drought, but it has reached the place where rain would be beneficial. Winter rye is very much checked in growth. It is doubtful if it can make sufficient recovery under favorable conditions to produce normal growth for a green manure crop. Barley, oats, spring wheat, and peas have good healthy color and are making some growth.

Trimming and labeling of the plots has been in progress during the week.

The boys and girls annual judging contest, and the annual Feeder's day program occurred on the Experiment Station the 24th and 25th, respectively. The attendance and interest were good.

Dean L. E. Call of the Kansas State College; E. F. Chilcott, Woodward; and E. H. Coles and J. B. Kuska from Colby, were among the visitors of the station the last of the week.

Maximum temperature, 91°; minimum, 30°; precipitation, 0.13 inch.

GARDEN CITY:

Dry weather continues with wind velocities about normal for the season. Wheat continues to deteriorate in fields where live wheat remains. However, local showers and light general rains have raised hope of a wheat crop in some parts of the region. Dust storms have been more severe the past week than previously, chiefly due to a few days of high wind velocity.

Maximum temperature, 88°; minimum, 28°; precipitation, 0.25 inch.

TUCUMCARI:

After several days of cloudy weather, every indication of rain vanished and the past few days have been clear. Temperatures rose considerably during the week, but vegetation seems remarkably vigorous considering the drought. Very little dead wood is found on fruit and shade trees, in spite of the accumulative deficiency of moisture in 1934 and 1935.

Considerable listing was done the past week, and the water wagon has made the rounds of all freshly planted trees. The surface soil is dry about 3 inches, but in most instances sufficient moisture is found just below this to permit satisfactory listing.

A party of six from the Soil Conservation Service, Amarillo, spent the morning of April 24 at the station. They were especially interested in a double row of Chinese elm, trees left unpruned, rows some 15 feet apart, adjoining a farmer's field where little attempt has been made to prevent soil movement. The elm now are 10 to 15 feet tall and are growing vigorously, but in many places freshly blown sand is banked from 3 to 5 feet around the base of the trees. The prospects for those trees are far from promising, for there seems no conceivable chance that moisture will penetrate the deep sand to the tree roots.

Maximum temperature, 83°; minimum, 36°; precipitation, 0.01 inch.

DALHART:

The chief work during the week consisted of watering trees and shrubs which were planted this spring. With the exception of a few of the larger conifers these species still have a good color. The shrub nursery material is just starting growth, and they are not sufficiently advanced to tell what percentage will start. Rabbits apparently prefer the young Chinese arborvitae and it is necessary to protect them. Many of the older Chinese arborvitae were severely frozen by hard freeze the first of April. The freeze seemed to affect chiefly those which were tenderest in 1930 with the March freeze of that year. On most of these trees the leaves appear to be the only part of the tree which was frozen and new leaf emergence is noticed now.

Dry weather continues to tell on the trees on the station. More dead tops are noticed daily. The station is brown with sand. Only an occasional green leaf is seen in the pasture. The April seeding of blue grama seed, blue grama hay, crested wheatgrass, and sweetclover was made on Monday. Leaf buds are swelling to unfolding on a few varieties of grapes in the vineyard.

Maximum temperature, 86°; minimum, 32°; precipitation, none.

BIG SPRING:

Weather conditions remained warm and dry during the week. Rains threatened on several occasions, but they generally developed into dusters. The continuous winter wheat plots are turning brown rapidly, and wheat on fallow shows only a few green spots. The ranges are getting very short, and cattlemen are reporting their cattle in poorer shape now than they were a month or six weeks ago. Station work has consisted of building grape trellises for the new vineyard and duckfoot cultivating cooperative fields.

Maximum temperature, 86°; minimum, 35°; precipitation, trace.

LAWTON:

Weather and crop conditions during the past week were no better than in the past three months. Only a very meager hope for very low yields of wheat on most farms continues. If moisture conditions are improved in the near future and cool, wet weather continues until maturity, the best fields may make from 3 to 5 bushels per acre. Under present conditions, a week of hot weather would likely eliminate any prospect of a yield. Some fields are already beyond recovery, and many farmers are utilizing the crop for pasture.

A surprisingly large number of comparatively small fields of volunteer oats are observed throughout the country. Stands are very thin and the crop is about fully headed. A good rain would make it possible to mow the crop for a light yield of hay. Without rain, the plants will be too short to be harvested. There is still a chance to produce some oats from spring seedings. The first heads are now showing on oats seeded on the station January 24.

A majority of the wheat varieties are in the stage of first heading. Early Blackhull and Kanred X Hard Federation No. 10091 were recorded as fully headed April 20 and 23, respectively.

Farmers are facing discouraging and serious conditions. Only a faint hope of a very small wheat and barley crop exists. The prospects for satisfactory yields of oats are very uncertain. Native pasture grasses and supplies of stock water are very limited. The first cutting of alfalfa on the creek bottom fields is of poor quality, and the yield is hardly worth the cost of haying operations. The ground must be soaked before cotton and feed crops can be planted. Vegetable gardens have been out of the question all spring, because of dry soil and on account of late spring freezes.

The total precipitation January 1 - April 25 amounts to 0.21 inch, recorded on 6 dates. Since December 5, 1935, the total amounts to 0.47 inch, recorded on 11 dates. Precipitation records, available since 1870, show that there has been no period of 3 months, at any time in the year, when the precipitation was as low as in January, February, and March, 1936. In 1899 the precipitation for this period totaled 0.39 inch, and in 1904 it amounted to 0.25 inch. In December 1917 and January and February, 1918, the total was 0.48 inch.

WOODWARD:

Maximum temperatures during the past week have not been unseasonably high, and on the morning of the 22nd a minimum temperature of 29° was recorded, but did not seem to do any damage.

With a total of only 0.70 inch rainfall since the first of the year, most of which occurred during January, prospects for even a light wheat crop are rapidly diminishing. Native grass has not started any appreciable growth yet and will not furnish any grazing for livestock until good rains occur. The present outlook for farmers over this region is anything but encouraging, with the fruit crop killed by late freezes and spring gardens already suffering from drought.

Station work for the week consisted of planting corn plots and fairly well finishing up planting nursery stock, cuttings, and seeds for the season. Some general repairing of machinery preparatory to field farming was also accomplished.

Maximum temperature, 86°; minimum, 29°; precipitation, 0.04 inch.

PENDLETON:

The past week has been moderately warm, and all crops have grown rapidly. The winter wheat does not have its usual dark green color and there are many yellow spots throughout the fields, apparently due to lack of nitrogen. On the station all the plowing and harrowing for fallow on increase fields has been completed. Much plowing remains to be done in the Columbia Basin wheat belt. The near zero weather (2° above) on November 2 and 3, killed many hardy shrubs to the ground line. The weigelas, jetbead, forsythias, Reeves spirea and Thunberg spireas were killed to the ground. Hugonis roses and Morrow's honeysuckles also show considerable injury.

Maximum temperature, 76°; minimum, 37°; precipitation, 0.23 inch.

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